

REMARKS

The Examiner is thanked for the careful review of this application. Please note that the amendments included herein utilize the revised amendment format permitted by the U.S.P.T.O. (See 1267 OG 106 (2/25/03)) Accordingly, no clean version nor marked up version of the changes is provided. Claims 1, 6, 16, and 20 have been amended. New claims 25 and 26 have been added without introducing new matter. Claims 1-3, 6-13, 16-17, 20-22, 25, and 26 are pending in the application.

Anticipation Rejections Under 35 U.S.C. §102

The Examiner has rejected claims 1, 2, 6-12, 16, 20, and 21 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,475,904 to Okoroanyanwu et al. The rejection is traversed, and Applicants request reconsideration.

In support of the 35 U.S.C. §102(e) rejection, the Examiner asserts that Okoroanyanwu et al. discloses that the surface imaging material has silicon incorporated therein. Applicants respectfully traverse the Examiner's characterization of Okoroanyanwu et al. relative to amended independent claims 1, 6, 16, and 20 because Okoroanyanwu et al. does not disclose that the surface imaging material is incorporated with silicon without a separate silylation operation, as defined in claims 1, 6, 16 and 20. Okoroanyanwu et al. discloses a separate silylation step to incorporate silicon into a photoresist layer. Therefore, Applicants respectfully submit that independent claims 1, 6, 16 and 20 are patentable over Okoroanyanwu et al. Claims 2, 7-12, and 21 are dependent claims of claims 1, 6, and 20. Based on the argument set forth above for claims 1, 6, 16 and 20, claims 2, 7-12, and 21 are also patentable over Okoroanyanwu et al. In addition, claims 9 and 10 describe methods of forming via-first and trench-first damascene structures, respectively, which are not disclosed

by Okoroanyanwu et al. Therefore, Applicants respectfully request withdrawal of the rejection.

Claims 3, 13, 17 and 22 are rejected under 35 U.S.C. §102(e) as being anticipated by Okoroanyanwu et al. The rejection is traversed, and Applicants request reconsideration.

Claims 3, 13, 17, and 22 are dependent claims of amended independent claims 1, 6, 16, and 20 respectively. Based on the argument set forth above for claims 1, 6, 16 and 20, claims 3, 13, 17 and 22 are also patentable over Okoroanyanwu et al. Applicants respectfully request withdrawal of the rejection.

Claims 20 and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,001,739 to Konishi The rejection is traversed, and Applicants request reconsideration.

Similar to Okoroanyanwu et al., Konishi also disclose a separate silylation step to incorporate silicon into a photoresist layer. Konishi does not disclose that the surface imaging material is incorporated with silicon without a separate silylation operation, as defined in claim 20. Therefore, Applicants respectfully submit that amended independent claim 20 is patentable over Konishi and request withdrawal of the rejection. Claim 21 depends from independent claim 20; therefore, Applicants respectfully submit claim 21 is also patentable over Konishi and request withdrawal of the rejection.

Obviousness Rejections Under 35 U.S.C. §103(a)

Claims 3, 13, 17, and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Okoroanyanwu et al. in view of U.S. Patent No. 6,057,928 to Li et al.

Claims 3, 13, 17, and 22 are dependent claims of amended independent claims 1, 6, 16, and 10. As discussed above, Okoroanyanwu et al. does not disclose that the surface

imaging material is incorporated with silicon without a separate silylation operation, as defined in independent claims 1, 6, 16 and 20. Li et al. do not disclose anywhere the incorporation of silicon in a surface imaging material. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one having ordinary skill in the art, to combine the references. In this case, when the references are combined the teachings fail to teach or suggest all of the claim features. Applicants therefore respectfully request that the rejections of these claims be withdrawn.

Claims 1-3, 6-13, 16, 17, 20-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,556,812 to Leuschner et al. in view of U.S. Patent No. 6,096,634 to Nguyen.

Similar to Okoroanyanwu et al., Leuschner et al. does not disclose or suggest that the surface imaging material is incorporated with silicon without a separate silylation operation, as defined in amended independent claims 1, 6, 16 and 20. Instead, like Okoroanyanwu et al., Leuschner et al. discloses that the “resist structures created in this manner are silylated at room temperature for 3 min in an aqueous-alcoholic solution.” Nguyen does not disclose anywhere the incorporation of silicon in a surface imaging material. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one having ordinary skill in the art, to combine the references. In this case, when the references are combined the teachings fail to teach or suggest all of the claim features. Applicants therefore respectfully submit that independent claims 1, 6, 16, and 20 are patentable over Leuschner et al. in view of Nguyen. Claims 2-3, 7-13, 17 and 21-22 are dependent claims of independent claims 1, 6, 16, and 20. Based on the argument set forth above for claims 1, 6, 16 and 20, claims 2-3, 7-13, 17 and

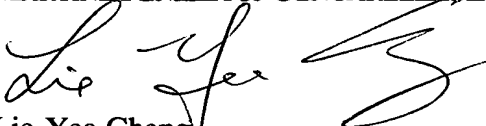
21-22 are also patentable over Leuschner et al. in view of Nguyen. Applicants respectfully request withdrawal of the rejection.

New claims 25 and 26 are added. Claims 25 and 26 correspond to claims 9 and 10 written in independent format. As discussed above, claims 9 and 10 describe methods of forming via-first and trench-first damascene structures, respectively, which are not disclosed by Okoroanyanwu et al. Applicants submit that new claims 25 and 26 are patentable over Okoroanyanwu et al.

Conclusion

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of pending claims 1-3, 6-13, 16-17, and 20-22, and request examination of new claims 25 and 26. Applicants respectfully submit that these claims are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 774-6924. If any additional fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. LAM1P111.CIP).

Respectfully submitted,
MARTINE PENILLA & GENCARELLA, L.L.P.


Lie-Yea Cheng
Reg. No. 50,732

710 Lakeway Drive, Suite 200
Sunnyvale, California 94085
Telephone: (408) 774-6924
Customer Number 25920